Updates to our decadal forecast

8 January 2013 - There has been media coverage today about our experimental decadal global temperature prediction, which is routinely updated in December each year.

The latest decadal prediction suggests that global temperatures over the next five years are likely to be a little lower than predicted from the previous prediction issued in December 2011.

However, both versions are consistent in predicting that we will continue to see near-record levels of global temperatures in the next few years.

This means temperatures will remain well above the long-term average and we will continue to see temperatures like those which resulted in 2000-2009 being the warmest decade in the instrumental record dating back to 1850.

Decadal predictions are specifically designed to predict fluctuations in the climate system through knowledge of the current climate state and multi-year variability of the oceans.

Small year to year fluctuations such as those that we are seeing in the shorter term five year predictions are expected due to natural variability in the climate system, and have no sustained impact on the long term warming.

In this case, changes in ocean surface temperatures in some parts of the world over the past year are understood to have made a key contribution to the difference between the 2011 and 2012 forecasts, but other factors will also have played a role.

Century-scale projections are less sensitive to natural variability and updates to the 2012 decadal forecast do not necessarily tell us anything about projections of climate change for the coming century.

The 2012 prediction is the first to use the Met Office's latest experimental decadal prediction system, based on HadGEM3. This includes a comprehensive set of improvements based on the latest scientific understanding.

HadGEM3 has been thoroughly tested and has more accurately reproduced temperature variations over the past few decades, suggesting it shows greater skill than was available from previous decadal forecast systems.

The Met Office routinely shares its research and this is often placed on our website, encouraging openness and transparency with our scientific colleagues and the public alike.

More information about decadal foreasts can be found on our website.

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